

Remarks

This is in response to the second non-final Office Action mailed April 4, 2006, which rejected pending claims 1-19. The Applicant has hereinabove amended the claims by providing clarifying language to claims 8 and 14, and added new claim 20.

Independent claim 8 now generally features “*continuing to operate the electrical load while processor operational control of the electrical load is temporarily suspended to load application code to the memory location.*” Support includes the previously presented language of claim 8 as well as in the specification at page 3, lines 2-7; page 10, lines 16-23; and page 13, lines 20-23.

Independent claim 14 now generally features a programmable processor which “*temporarily releases operational control of the electrical load so that the electrical load continues to operate in an open control mode while application code is loaded to the memory location.*” Support includes the previously presented language of claim 14, as well as that set forth above for claim 8.

New claim 20 generally features “*wherein at least one control signal is applied to the electrical load during the open control mode of the releasing step.*” Support includes in the specification at page 12, lines 4-14 (exemplary open control mode of spindle motor) and page 12, lines 20-32 (exemplary open control mode of VCM). These amendments are proper, do not introduce new matter or narrow the scope of the claimed subject matter, and place the application in proper condition for reconsideration and allowance.

Rejection of Claims Under 35 U.S.C. §102(e)

Claims 1-2, 6-7 and 19 were rejected as being anticipated by U.S. Published Patent

Application No. 2004/0019776 to Sato et al. (“Sato ‘776”). This rejection is respectfully traversed.

Sato ‘776 at least fails to disclose “*releasing processor control so that the electrical load operates in an open control mode while the first code is displaced with a second code,*” as featured by claim 1. Sato ‘776 discloses a processor 412 that provides processor control of a spindle motor 104 by a boot program (unit 112). This control continues until a handover step takes place, at which point processor control is transferred to a main program (unit 113). See para. [0049], lines 12-14; Para. [0060], lines 1-5; para. [0088], lines 4-9; steps 301, 302 and 307 of FIG. 5.

No one skilled in the art would view the interval of time in Sato ‘776 between the operational control of the spindle motor 104 by the processor 412 under the boot program to operational control of the motor 104 by the main program as constituting the recited “open control mode.” See specification, page 16, lines 16-21.

Sato ‘776 explicitly discloses that *the “main program takes over the control processing,”* ([0072], lines 8-10), which means that up until the time of the handover step, the motor 104 continues to be under processor control by the boot program to maintain the motor 104 at a first selected speed (such as 5400 rpm). Para. [0085]. Sato ‘776 discloses to use a branch instruction or the like to pass the programming instruction sequence directly to the main program in RAM 414, so that no interruption in the control inputs takes place between boot program control and main program control. See [0088], lines 5-10.

Sato ‘776 further states that the first thing that the main program (setup section 212) does upon the handoff is to determine whether an increase in speed is needed to a second, higher rotational speed (such as 15,000 rpm). If so, the boot section 112 of the main

program instructs the disc controller 411 to accelerate the motor 104 to this second speed. See para. [0089] and steps 308, 309 in FIG. 5. Sato '776 thus treats the motor 104 as being continuously under process control throughout the boot process. Para. [0096].

Finally, the term “mode” is a term of art readily understood by the skilled artisan as a particular state in which a device is operated. The term “open control mode” is further defined as a particular type of “mode” at page 16, lines 16-21. Thus, the time interval between successive samples applied to the digital control system of Sato '776 by the boot program and then by the main control program cannot be reasonably construed as an “open control mode” as claimed. Reconsideration and withdrawal of the rejection of claim 1, and for the claims depending therefrom, are accordingly requested on these bases.

Rejection of Claims Under 35 U.S.C. §103(a)

Claims 3-5 and 8-18 were rejected as being obvious over Sato '776 in view of U.S. Patent No. 6,405,311 to Broyles et al. (“Broyles '311”). This rejection is respectfully traversed.

Claims 3-5 are believed patentable as depending from a patentable base claim, as discussed above. Moreover, the Applicant points out that claim 5 generally features the releasing step as *“moving the second code from the second memory location into the first memory location.”* Both Sato '776 and Broyles '311 are silent with regard to teaching or suggesting this operation during the recited “open control mode” as claimed.

With regard to independent claim 8, both Sato '776 and Broyles '311 are silent with regard to teaching or suggesting *“continuing to operate the electrical load while processor operational control of the electrical load is temporarily suspended to load application code”*

in the memory location.” As discussed above, Sato ‘776 directs the processing instructions to immediately jump from the boot program to the main program in RAM 414 so that no such temporary suspension of operational control takes place.

Even assuming *arguendo* that the Examiner’s characterization of Broyles ‘311 is correct in the Broyles ‘311 moves boot code into RAM, this still fails to teach or suggest the above subject matter.

Moreover, there is nothing that would motivate one skilled in the art to arrive at the claimed subject matter from the teachings and suggestions of these references. Accordingly, reconsideration and withdrawal of the rejection of claim 8, and for the claims depending therefrom, are respectfully requested.

For the foregoing reasons, claim 14 is also believed to be patentable over the cited references. Reconsideration and withdrawal of the rejection of claim 14, as well as for the claims depending therefrom, are respectfully requested..

New Claim 20

Pursuant to 37 CFR 1.111, new claim 20 is believed to be patentable as depending from a patentable base claim.

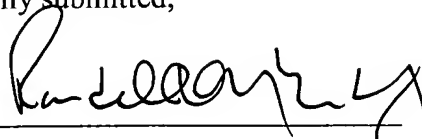
Conclusion

The Applicant respectfully requests reconsideration and allowance of all of the claims pending in the application. This Response is intended to be a complete response to the first Office Action mailed April 4, 2006.

Should any questions arise concerning this response, the Examiner is invited to contact the below signed Attorney.

Respectfully submitted,

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